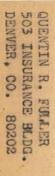
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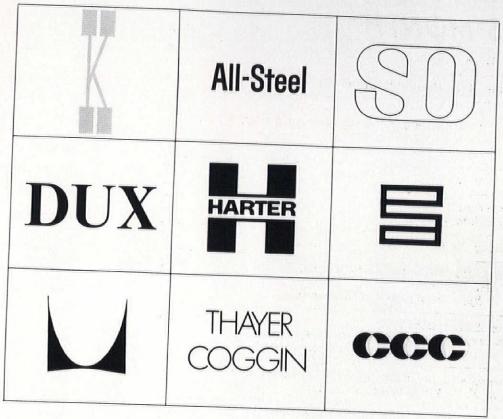
Architect and Engineer: Ken R. White Company Principal Architect: Donald L. Preszler Contractor: Weaver Construction Co. Concrete Supplier: Herbertson Concrete, Inc. Concrete Testing Lab: Commercial Testing Lab.



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construction communications in the West

VOLUME 5

NUMBER 10

APRIL, 1971

| THIS MONTH | Page |
|---|------|
| JP UP With People | 6 |
| New Fine Arts Building/University of Wyoming | 8 |
| Critique The Arbitration Experience/Joe Boehning, A.I.A. | 10 |
| Symposia/About The Cover | 12 |
| Legislation/'71 | 17 |
| "A Finger In The Pie" by: Tom Wixon | 18 |
| Consulting Engineers Meet | 20 |
| The Turntable Divisible Auditorium a new dimension by: Dr. Wendell E. Rossman | 22 |
| Mission Accomplished the report of the Region 10 Conference Construction Specifications Institute | 25 |
| Environmental Locations of EHV Transmission Lines by: F. J. MacDonald, A.I.L.A. | 30 |
| Poesy(?) on the Passage of the Sign Code | 31 |
| Take Me To Your Leader | 32 |
| Symposia/Around the Region | 34 |
| Practically Painless a design feature | 39 |
| The Last Word | 4 |
| Index to Advertising | 48 |

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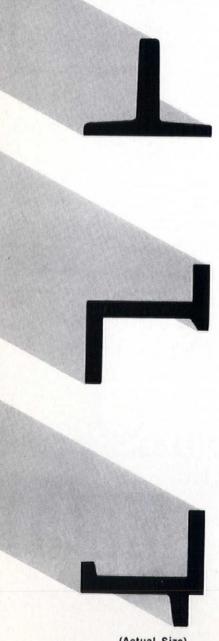
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Symposia/April, 1971

Page 5



(Actual Size)

UP UP With People!

(A brief report honoring Professional and Industry members in our Symposia Region who have achieved some of the "good things in life" in the past few weeks.)



UP WITH CLEVENGER

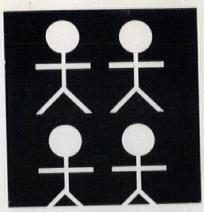
Yes, indeed, it is UP with William A. Clevenger of the Colorado Consulting Engineering firm of Woodward-Clevenger and Associates. Nominated for Vice President of the Consulting Engineers Council/USA, he will undoubtedly assume his new role at the National Convention of CEC to be held May 11-14 in Hollywood, Florida (yep, that's Florida). Born and raised in Wyoming, a graduate of the University of Wyoming, Mr. Clevenger is a Past President of CEC/Colorado; Fellow and Past President of the American Society of Civil Engineers/Colorado Section; the Colorado Engineering Council and the

International Commission on Large Dams. He has been long active in CEC/USA affairs serving as director in 1968-70, and is Past Chairman of the Public Relations and Business Development Committees. He and his wife Janet have four children . . . Tom who is married and lives in Denver and three attending university, Bill, Martha and Pat. All are enthusiastic about sports most especially skiing, hunting and fishing.



UP WITH KILBEY

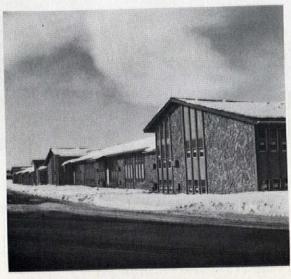
At their annual meeting on March 8th, Colorado's Architectural Secretaries honored John Kilbey, President of the Denver Chapter of Producers' Council as the man to see "when a feller needs a friend." John and his PC Colleagues came on like "gangbusters" when the neophyte ASA Chapter found themselves playing hostess to the National convention.

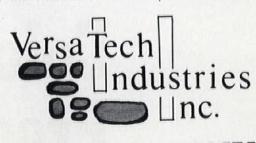


Contributing talent, time and that allimportant "long-green" spelled the difference for the gals, and they said "thank you" very nicely by presenting Producers' Council with a beautiful placque. Of course, all of us find Mr. Kilbey and his crew an awardwinning bunch all year 'round!

UP WITH WEAVER

"Bosses Night" is a mighty important function for the Metropolitan Denver Chapter of the Women in Construction. They not only honor all the Bosses but single out one lucky fellow for "Boss of the Year." In 1971, this gentleman is Dean Weaver of the Weaver Construction Company who was nominated by his secretary, Marvyl Lambert. Mr. Weaver is an active member of the Associated Building Contractors of Colorado (AGC) and well known and liked throughout the Industry. Judges for this year's third annual award were Walter Prebis of Colorado Prestressers Association, Dick Lehman of the ABR Partners and Francis Barnett, structural engineer with the Bureau of Reclamation. Program Chairman, Karen Burkhart presented the 1971 Award to Mr. Weaver and the Bosses Night banquet held in mid-February.





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for: The University of Wyoming/Laramie A New Fine Arts Building

Associated Architects: CORBETT/DEHNERT, Architects J. T. BANNER AND ASSOCIATES, INC.

BACKGROUND

Funds having been appropriated by the State Legislature in 1967, the Architects were hired in 1968 to provide a new Fine Arts Center on the east mall between fraternity and sorority rows near the field house on the Laramie campus.

PROGRAM

To provide for the undergraduate school of Drama, Music and Art a temporary teaching facility including the following spaces:

400 seat drama theatre, 200 seat experimental theatre, drama work areas and offices, 700 seat concert hall, band and chorus rehearsal areas, music studios and offices, art galleries, art studies and offices and miscellaneous classrooms and supporting facilities.

Student traffic to the building will normally be by foot from the west and night time use of theatres and concert hall will be approached by vehicle from the east, utilizing joint parking areas with the field house and stadium.

To enrich the student campus life as well as make him aware of the other fine arts disciplines, it was decided to keep the three art functions within the same general space, avoiding the departmental approach of separate wings or buildings. This worked well in that the Drama theatre and concert hall could be entered from the common lobby and the experimental theatre and art gallery could be located on the same floor.

For ease in spectator flow into the theatre and concert hall, the stage in each case was dropped to the basement

level with ramped truck access to the scene shop and stages enabling the designers to use on-grade entry to the auditoriums.

Sound control throughout the building was controlled by location of high noise sources in relation to other spaces, dense structural materials and "soft walls" as required to dampen the noise.

Because of the strong character of the limestone taken from local quarries, it was decided that use of similar stone in a more functional precast use was desired and a fluted form was used to achieve this effect contrasting with the precast panels and contained within strong planes of the precast, dark brown brick was used in conjunction with the bronze entrances and windows. To simplify and speed up construction of the stage house and concert hall mass, weathering steel on a structural steel framework was employed.

BID OPENING

At the bid opening, F. R. Orr Construction Company, Reiman-Wuerth Company, Spiegelberg Lumber & Building Company, Alfred Brown Company, Penner Construction Co., L. M. Olson Construction Co., Skyline Construction of Wyoming, submitted bids ranging from a low of \$4,351,-000.00 to a high of \$4,938,600.00. F. R. Orr Construction was awarded the contract on the base bid.

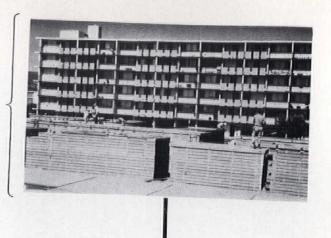
SEQUEL

Construction on the new Fine Arts Center began in October of last year and final completion is scheduled for the summer of 1972.

"Let the houses be changed and arranged in order and this will be easily done when they are first made in parts on the ground . . .

... and then the framework can be fitted together on the site where they are to be permanent."

-Leonardo da Vinci





A site precast system was used in constructing this six-story, 100-unit apartment.

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(Since Symposia means an exchange of ideas—we provide this column for the bouquets and bulldozers-a chance to talk it over with your colleagues in the architecture/engineering/ construction community. The welcome mat is out-address Symposia at 4070 Estes Street, Wheat Ridge, Colorado 80033).

THE ARBITRATION **EXPERIENCE**

by: Joe Boehning, A.I.A.

The Arbitration Experience - A Criticism (Symposia, October, 1970) will certainly evoke a goodly response, and rightfully so, since the construction industry is increasingly turning to this method of dispute settlement for a variety of reasons which I want to explore below.

Arbitration, which has served the construction industry very well since 1871 when it was first introduced into the standard form construction contracts, certainly deserves the informed attention of the design profession that C. Neal Carpenter called for. Not only because of his disquieting personal experience as an arbitration panel member, but because the newest AIA documents reaffirm the profession's commitment to this dispute settlement procedure.

So, let's examine what arbitration is intended to do by contrast with litigation.

In a judicial proceeding, a full-time judiciary adjudicates controversies involving parties over which the law gives jurisdiction. The proceeding is compulsory in nature, rigid in form and public. It is conducted strictly by the rules of evidence. The court not only decides the ultimate issues, but usually gives its supporting reasons therefore. The final determination of fact and law is reviewable.

Arbitration is basically voluntary and less formal. The arbitrator (or an arbitration panel) need not apply substantive principles of law; the proceeding is conducted in private and usually no transcript is made. The arbitrator is not bound by the rules of evidence, need not give reasons to support his ultimate decision and his award is not subject to judicial review for errors of law or fact.

An important point to note is that whatever the differences, the application of principles of justice is common to both processes. And further, arbitration, like litigation, should result in a clear-cut determination rather than a compromise although the parties may freely choose to settle their dispute at any point up to an arbitration award.

That's the theory-the ideal-though we all know that human institutions are neither perfect nor infallible. So, efforts are constantly being made to improve the workings of arbitration to resolve construction industry disputes more expeditiously and less expensively than litigation.

A major step in that direction was taken in 1988

A major step in that direction was taken in 1966 when AIA promulgated its new form agreements which, while containing slightly different arbitration clauses, depending upon whether architects, engineers or contractors are involved, provide exclusively for arbitration according to the Construction Industry Arbitration Rules of the American Arbitration Association. These Rules replace the AIA arbitration procedures ending a particular source of dissatisfaction with arbitration: namely, the joint designation of a single arbitrator or three arbitrators by the two disputing parties. As Mr. Carpenter vividly demonstrated, this procedure frequently provides the opportunity for delay, extra expense and confusion when speed is so important. Now, under the Rules, the arbitrators in all cases will be selected by the AAA from its construction panel and will serve as neutrals.

In addition, the Construction Industry Rules establish one nationwide, uniform system for the construction industry, take the AIA out of the business of administering arbitrations, provide dispute machinery for the entire family involved in the construction industry-architects, engineers, contractors, owners, etc.—and provide for the administration of the arbitrations by a professional arbitration agency. And, the workings of this revised system are closely monitored by a national construction industry committee composed of the American Institute of Architects, Associated General Contractors, National Society of Professional Engineers, Consulting Engineers Council, American Society of Civil Engineers, Council of Mechanical Specialty Contracting Industries, and American Institute of Interior Designers, and, in addition, there are regional counterparts of the National Committee in twenty-five metropolitan areas across the country. So far, the construction industry family and many in the legal profession agree that this new system has much to recommend

Which is the most effective means of settling disputes arising in and around the construction industry—arbitration or litigation? Obviously, each party to a contract must make that determination before he selects either, since he has the right to delete or amend the contract's arbitration clause. In reaching his conclusion, I believe the



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DENVER, COLORADO 80216 303-388-9265 architect should bear in mind that administered arbitration under the Construction Industry Rules will insure a speedy, inexpensive, final determination of a controversy that may arise by arbitrators who are experts in the field and empowered to do justice as the particular circumstances require. The architect might further consider that arbitration is private and that the design profession is best served when its disputes are settled by and within the profession.

I want to underscore Mr. Carpenter's point that our profession, the construction industry and owners should be better informed on arbitration. We have an excellent informational resource in our region - the AAA office in Phoenix at 132 South Central Avenue. I know that its director, Paul A. Newnham, will be happy to answer your questions and provide important educational materials.

From the Smiling Symposia Mailbox:

Dear Elizabeth:

Gene and I are on the plane to Bangkok after staying a few gorgeous days in Hong Kong. We're going to the ded cation of the Sirikit Dam in Northern Thailand (on Laos border). After two weeks in Thailand, we're coming home by way of Singapore, Djarkarta, Australia, New Zealand, Fiji, Tahiti and San Francisco . . . unless we're tempted and stay somewhere along the way. (We're just flying over Cambodia, the pilot says.)

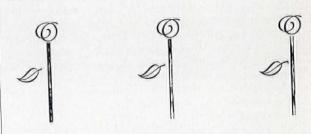
Actually, Elizabeth, my reason for writing is to tell you how much we enjoy Symposia. Diana (our daughter . . . you'll remember) is about to get an Interior Design degree from Californ'a College of Arts and Crafts and she really likes to see what the architects are doing-so she, as well

as Gene and I, look forward to Symposia, a well put-together, very attractive magazine.

Our very best regards to you and Fletcher too!

Wini and Gene Waggoner!

Wini and Gene are old and dear friends . . . not to just the Symposia Team (we used to square dance together in the late 1940's!) but to multi people in the region. Gene is the former President of CEC/Colorado and CEC/USA. We miss 'em in the Symposia Region.



symposia/about the cover

It's green-up time-even on our April cover. The spring blossom nestled in the leaves is the Park Lane-the first increment in high-rise apartment complex located almost next door to Washington Park in south Denver. Architect for the project was Joseph T. Wilson Associates, AIA, and Bill Sallada of Sallada-Hanson and Associates was the Structural Engineer. The General Contractor was Hewson Construction, Inc. Built of reinforced load-bearing masonry, the cost per square foot of floor space was \$13.15.

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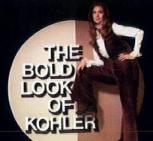
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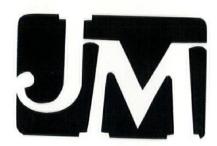
elongated bowl and offers quiet flushing. wished with 1/2-inch supply fitting.



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LEGISLATION/'71

ARIZONA: Four bills are still "up for grabs" - 1) the Lien Bill (SB 23) which has been amended almost beyond recognition. A compromise amendment has been submitted by the AIA for consideration by a sub-committee. 2) The Fee Bill (SB 125) This was to be discussed again on March 1, and we have no late report. We must, however, include a comment from the Central Arizona Chapter newsletter which pointed out that at the hearing on February 22, six architects were present while the state cosmetologists group turned out approximately one hundred and fifty people at the same committee meeting. 3) Limitation of Actions (HB 52) The Attorney General has ruled that a simple six-year limitation would be unconstitutional. There is a hope of submitting revised legislation for another opinion before adjournment. 4) Environmental Planning (HB 87) This seems to be very much alive after approval by several committees.

COLORADO: On March 15th, the Denver City Council passed unanimously the final reading of a strict new Sign Code for the City and County of Denver. Bitterly opposed by sign and billboard industries, it is almost certain to provoke a series of court tests. Within 30 days all flashing, blinking and animated signs must be removed. Other signs and billboards will be removed under a two to five year amortization schedule based on the value of the device. In addition to banning billboards, the code will also outlaw banners, flags and window signs - projecting and roof signs including marquees extending more than 24 inches from the wall of the building, limit the height of free standing ground signs to 32 feet and limit the size of allowed wall signs to 3% of the square footage of the building face. THE NICEST THING TO HAPPEN TO A CITY!

NEW MEXICO: Report/30th Session of the State Legislature by Bradley Kidder, FAIA, with pertinent comments from Joe Boehning, AIA. 925 Bills have been introduced . . . adjournment is set for 20, March which means 16 Bills must be disposed of every day and by each House. Saturday and Night sessions have already begun. HB-143: Professional Fees established by Bids. DEFEATED. HB-167: Bill to permit Arbitration of Contract Disputes

 supported by both AIA and CEC, this may well be approved, with some amendments.

HB-257 and HB-361: Both would revise the law relating to extend of the work which may be done by the Owner without an Architect's services. Although the intent was good, the way these bills were written could have been disasterous to the law as it now stands. Many amendments have been offered, the bills consolidated and if passed as revised will not effect the purpose of the law and would somewhat liberalize the extent of Owner-Maintainence. SB-11: To create a Uniform Licensing Board (About the tenth time such a Bill has been introduced—it will eventually pass, but for this session, the best its Sponsors can hope is a watered-down version.)

SB-189: The same old Anti-Indemnification Bill that was voted, passed and vetoed in the 29th Session. We've fought this one with lots of help from the Engineers and others. It appears some modified version may pass, but its language will be similar to that contained in the AIA General Conditions. Joe comments on this "I attended a hearing of the House Judiciary Committee to discuss a bill to void all hold-harmless clauses from all construction contracts. This bill would void Section 4:18 of the General Conditions which had been endorsed by the AGC as well as AIA. Strangely, the local AGC is the sponsor of this bill . . . their argument before the committee was that they were not against 4:18, but their proposed legislation was designed to protect against unethical, hold-harmless clauses in contracts regarding heavy construction, utilities, highways and oil wells. The House Committee urged the re-writing of the bill to exempt 4:18 and all parties were in agreement with this." If passed in its present form, continues Brad, we will not contest it.

There are a number of appropriation Bills for Remodeling, Land Acquisition and New Buildings . . . we hope some will eventually survive. HB-266 would create a Building Code Section to cover Housing for the Elderly; SB-248 relates to the CIC Code of Factory Built Houses, etc., and we will get something. And SB-366 creates zoning and aesthetic controls for Scenic Highways . . . this specifically included the creation of the High Road to Taos which has been months in preparation. John "Himself" McHugh is the Chairman of the AD Hoc Committee charged with preparing all supporting maps, photos, data and the like.



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"A Finger in the Pie"



(We are most pleased in re-print here a delightful personal narrative authored by Tom Wixon of Carson City, Nevada. It came to us through our Reno Editorial Board member, Ed Parsons, who read it first in the Nevada Appeal. After corresponding with Mr. W., we obtained his permission to share his story and pictures of this lady "clerk of the works" with our Symposia readers. He only asked that we include the line "may be reprinted with permission of the author only." We believe you will enjoy meeting Sue Brownson, apprentice architect, who is introduced in such a warm hearted manner by newspaperman, Tom Wixon.)



Photos and Story: Tom Wixon

The man had a face like leather exposed to the sun. He was husky, too, with the huge arms and hands of a workman.

"Where can I find Sue Brownson?" I asked.

"She's probably out there," he said, pointing to a hole in the earth where viscous concrete quivered against wooden slabs forming the four sides of a building foundation.

I looked down in the hole and saw a woman in her 20s, blonde hair pulled back tight into a pony tail. She wore a white blouse, denim pants, and pigskin shoes. She carried a notebook.

Next to her stood a short, barrel-chested laborer with an aluminum hard hat on his head.

Together they watched the semi-solid batch crawl down the slide like oatmeal into a trough, and watched it settle between the boards.

Later, a slump test would show the concrete was too soft and Sue would reject the load.

But now she motioned to her office, a six by eight foot wooden hut, one of three in a row. Inside were blueprints, a file cabinet, telephone, books, papers, and a plastic hard hat she sometimes wears. I laughed at a small round mirror hanging on the plasterboard wall.

Sue sat down on a stool, wiped her face with a tissue paper, and lit a cigarette.

Sue is an architect by training, an apprentice by trade. But she took a six months job as clerk of the works on a construction job for the experience.

"As a female, I couldn't have gotten hired as a hodcarrier, so this is the only way I could get my fingers into the pie," she said. "I like it. It's a challenge, and the part of the business I've always wanted to get involved in-the actual putting together of a thing."

The "thing" is the new Carson City Library across from Mills Park and the municipal swimming pool. Work on the \$365,000 structure began Sept. 1 and is scheduled for completion in late March, 1971.

A clerk of the works is a building trades title for the owner's representative on the job. Sue's job is to inspect and approve each phase of the building for compliance to job specifications.

She's one of a very few women who have ever held that position in the United States, and she may be the first in Nevada.

"It's something new," Ron Caskey, job superintendent for the contractor, told me. "We usually have some ugly old man."

Caskey's been in the business for 28 years and has never worked shoulder to shoulder with a female.

"I knew about it before I got here," he said, "They asked if we had any objections to it. We had one stipulation-'if she's qualified.' "

"She's a pretty nice girl. Young enough to be my daughter. She's very capable."

Caskey is just one of the men in Sue's professional life. The others are contractors, laborers, engineers, and architects. None of them recall seeing a woman inspect the construction of a building.

"It's different," said Fred Crowley, labor foreman. Crowley, in muddy boots and cement-splattered coveralls, told me Sue would have been a bigger surprise to him nine years ago when he first got into the construction field. But now, "times have changed," he says.

Crowley said he knew of a woman cement truck driver on a job at Lake Tahoe a few years ago, but he's never heard of one in Sue's position.

Jim Rankin is Carson City's engineer. He works outdoors

a lot and it shows. Rankin wears scuffed cowboy boots on the job. He stumbled on Sue by mistake one day when he went out to look over the construction site.

"My first reaction was, 'how the hell can the contractor do a good job of cussing out the inspector?'" he said.

He said he never heard of a female inspector on the job in Nevada either.

Harry Lemon, half of the Capriotti-Lemon Construction Co. doing the building, said Sue's job was a unique one for a woman. He said he didn't think there was another woman in the county with her job. He's been in the business 30 years.

Lemon thinks the idea is "refreshing" but he's more impressed with the lady's credentials. "She's educated along the engineering and architectural lines," he said. "She knows her stuff."

Ray Hellmann is the Reno architect who hired Sue as an apprentice three years ago. He recommended her for the job. He said there were three applicants, but her availability and qualifications put her in the best spot.

He admits he had one reservation about offering her the job. "I knew she'd have to use the same sani-hut and be around construction men who are known to do a lot of cussing," he said. "I didn't know what their reaction would be."

I couldn't find out either. Apparently there wasn't any. "I think the majority of them had been forewarned," Sue told me. "A couple came upon me unexpectedly and were rather shocked. But they're all good people and I haven't gotten any harassment from anyone."

I asked if that surprised her.

"Yes, it really does," she said. "I expected dissention in certain areas because the general cross section of males usually turns up a few who are down on women. So far I haven't come across this."

Caskey said he too was surprised by the lack of reaction. "I only heard one remark from a guy who didn't think it was a good idea. And one said they'd have to watch their language, something they're not used to on a construction job.

"The fellows are usually rough and tough people on the job," Caskey said. "It's tough work. I thought they wouldn't go for it. I guess I didn't think they'd be so liberal-minded, but they seem to be."

"Everybody's taking it in stride," Crowley said, stepping across the foundation and out of the hole. "In this day and age, it doesn't come as a great shock."

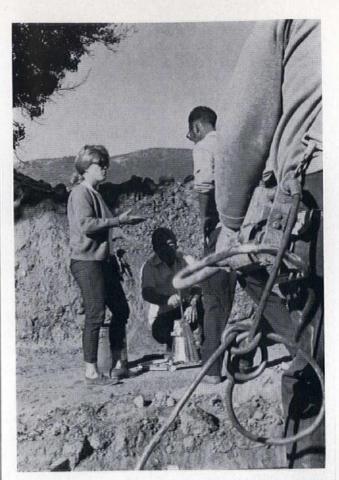
Lemon is under the impression it's a "delightful idea, as long as the girl is qualified.

"This ought to open up some avenues for some other ladies who are qualified."

Sue's qualifications were hard to get. She spent four years at Idaho State University, where she was the only girl in the department. She wanted to be an architect all her life.

In addition, she's had to spend the required three years as an apprentice. Now she has to take four days of examinations to be registered.

There aren't many women in that profession.



"It's known as a man's field," Sue said. "Everybody accepts that. Not too many women challenge that.

"Plus it requires dedication. The courses are hard and there's the apprenticeship and you have to build a reputation—it's a lifetime thing."

"I don't really think I could go it alone because I m a female," she said. "You have to have the clientele, and they're more likely to go to a man first.

"I think if it came down to a choice between two equally qualified architects, one male, one female, they'd choose the male.

Especially businessmen, anyway. And commercial building is where the money is."

Caskey has some thoughts on women coming into the construction field. He says there are only four women carpenters, for instance, in Reno, out of 1,000 union members. But in Los Angeles, where he once worked, there are lady carpenters, electricians, engineers and ar hitects and there may even have been an occasional female clerk of the works.

There is one Los Angeles carpenters' local that's all female, he said. And there are 8,000 or more women carpenters in American unions.

Builders are no longer reluctant to hire females, as long as they're qualified for the job, he said.

In Sue's case, Caskey said, "She came out of a good architect's office, had the background, and was capable." Lemon said his company had no reluctance to hire her at all because she was qualified and had field experience. Bob Butler, a member of the library board made the final decision to hire her, said, "We went over her qualifications and recommendations, "she was avai able and she was hired."

He admits he was surprised, "not knowing any female clerks of the works," but said the reception to the idea was "great all the way down the line."



CONSULTING ENGINEERS MEET

The Consulting Engineers Council each February join with their colleagues in the profession to celebrate Engineer George Washington's Birthday in the time-honored fashion. Last month, John Hoffman of Boise reported on the CE/Idaho meeting—this time around we take a look at CEC/Colorado celebrating on Washington's new birthday on February 15th, and CEC/Utah who stayed with tradition.

Denver's Brown Palace Hotel provided the backdrop for Colorado's celebration which drew a full house for an excellent meal, and the opportunity to salute the 1971 winners of the Fourth Annual CEC/Colorado Engineering Excellence Awards. The Grand Award was presented to the engineering firm of Barber-Nichols for the steam turbine, anti-pollutant automotive engine which they have developed for the Lear Motors Corporation. A prototype of the engine was displayed at the banquet and it was announced that it will soon be placed in a car for road testing.

Engineering Excellence Awards which will be entered in the CEC/US National competition were made to Ketchum-Konkel-Barrett-Nickel-Austin for the structural design of the Colorado State Bank located in Denver. On hand to receive the handsome placques were Nick Tsioubaras of KKBNA and John Rogers of Rogers-Nagel-Langhart who are associated with the architectural firm of Harwood K. Smith and Partners of Dallas on the project.

Henningson-Durham-Richardson was cited for its design of the North Side Water Treatment plant for the City of Westminster, a suburb of Denver and Black and Veatch received an award for their design of the Shanahan Reservoir for the City of Boulder, Colorado. For the fourth consecutive year, the Ken R. White Company of Denver won an Engineering Excellence Award in the CEC/Colorado competition. This year's citation was for the spectacular Fred G. Redmon Bridges Selah Creek in the state of Washington.

Some very special guests were also on hand on February 15th to hear



Hyah are the judges—and at work, too! Left to right, Bill Hawes, C.E.C., a somewhat quizzical John Anderson, A.I.A. and Jim Hunter, F.A.I.A. The backdrop is the winning entry—the Barber-Nichols Engine.

U. S. Representative Mike McKevitt (R) of Colorado . . . they were CEC/US National President, Thomas Robinson and William Lear, president of the Lear Motors Corporation. The Jury for this year's Awards program included John Anderson, AIA, of the ABR Partnership, Denver; James Hunter, FAIA, James Hunter Associates, Boulder, and William Hawes, former president of CEC/Colorado.

Utah reports another oustanding Engineering Week under the General Chairmanship of F. Garn Hatch. To quote Executive Secretary for CEC/Utah, pretty Carol Wagner, in her March Newsletter . . . "F. Garn Hatch deserves our warmest appreciation for all he does to make this a week of excitement in engineering both on and off the campus."

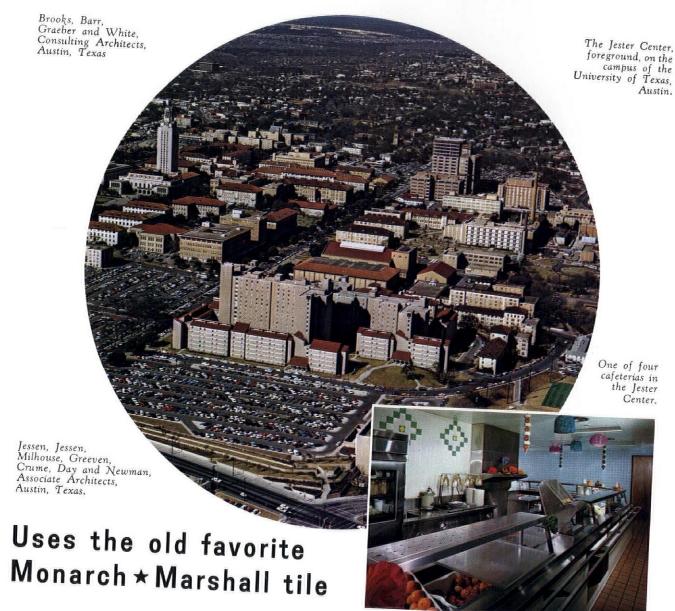
The 1971 Engineer of the Year Awards were presented to Grant K. Borg, Department of Civil Engineering at the University of Utah, for Community

Service and to Ivan E. Sutherland, Evans and Sutherland Computer Corporation for Technical Competence. The usual fine booth for CEC/Utah was assembled this time around by Frank Bonnell, Dave Curtis and Mark Bryner.

The Annual Banquet which serves as a highlight for the celebration of Engineers Week in Utah this year featured Dr. Simon Ramo, eminent scientist, engineer, industrialist and educator. Dr. Ramo is one of the national key advisors to the government on technological matters. It was a great pleasure for Utahans to welcome this native son "back home"—Dr. Ramo graduated from the University of Utah with high honors.

So another Engineer's Week has come and gone—and like its predecessors—it was a great opportunity to get to know this segment of our Industry a little better. Gentlemen—we salute you!

This new concept in college education



Classrooms, dormitories and food services for 3,000 students, primarily freshmen and sophomores, are combined in this one efficient center on the huge University of Texas campus.

For such a new concept the architects chose an old favorite, Monarch*Marshall ceramic tile.

They used one hundred sixty thousand square feet of our tile wherever beauty, permanence, sanitation and easy cleaning are required.

This is one of many recent installations of Monarch*Marshall tile in educational facilities—further evidence that it gives you better surfaces.

Monarch * Marshall



The Turntable Divisible Auditorium

a new dimension

(It is our pleasure to bring to Symposia's readers, this treatise on TDAan exciting concept used by Dr. Rossman's firm, Rossman and Associates, Architects of Phoenix in the Agua Fria Union High School in Avondale, Arizona. Selected for the architectural exhibit during the American Association of School Administrators' Convention, this year, Dr. Rossman's innovative approach is given the "full treatment" in this article authored by the gentleman himself.)

Photography: Koppes, Phoenix

by Dr. Wendell E. Rossman

Origin of the Divisible Auditorium

History points towards two independent paths of thinking which, upon convergence, produced the divisible

One path came from the theatrical sphere. There the objective was to increase flexibility of the house so as to broaden range and kind of performance. A number of proposals are documented in the patent literature, dating back to 1920. Most notably are those of Walter Gropius and Adelar Perrottet. Both proposals aim at a more flexible seating arrangement to follow a variety of desirable stage configurations. In the last decade considerable energy has been directed towards auditoriums that can be reduced in size by cutting off part of the seating, together with a change of the ceiling position.

The other path is that of simultaneous multi-use, accomplished by dividing a larger room into several smaller ones. The idea, dating back about 120 years, originated most likely in the area of school architecture. Its practical realization had to wait nearly 110 years until the science of acoustics provided the know-how of soundproofing dividing walls. Both paths of thinking had one common denominator: an increased useability of the structure. As auditoriums became standard repertoire

in educational institutions, the desire for higher efficiency turned into an absolute necessity.

State of the Art to 1970

The realization of this necessity is barely ten years old. The first properly controlled experiment was the 500 seat auditorium of the Boulder City High School in Nevada, built under the auspices of the Ford Foundation. Division of this auditorium was accomplished by cutting the house into three pieces with the aid of movable walls. Since Boulder City, many hundred divisible auditoriums have been built. The movable wall manufacture has become a multi-million dollar business and volumes of explanatory and descriptive literature have accumulated on the subject.

Nevertheless, while Boulder City marked the beginning of the wall-divisible-auditorium, it was also the end of this technical development. In the past ten years the principle has not changed further, only improvements in the technology of the divisible wall were made. It seemed that auditoriums could not really be divided into several self-contained, architecturally acceptable sub-auditoriums.

The deficiencies were summed up one day in 1963 by Dr. Howard C. Seymour, Superintendent of the Phoenix Union High School System, in a seminar, which since has become known as "Seymour's Challenge." He stated the chief disadvantages as follows:

- The geometry of the rooms precludes a proper teaching end with its necessary facilities and permanency,
- that vertical as well as horizontal sight lines are notoriously poor,
- c) that sound transmission, even through the best of the available systems, is such as to limit concurrent educational programs on both sides of the wall, and
- that the mechanical reliability of folding and coiling walls was very low, thus jeopardizing any firm scheduling.

In summary, the wall-divisible-auditorium, even though economically superior to the undivisible auditorium, left much to be desired.

To the auditorium designer it is also evident that Seymour's Challenge applied to all auditoriums, be they educational, civic, religious or of the entertainment kind.

A New Solution: The TDA

Sparked by the Seymour Challenge, we (Dr. Wendell E. Rossman) proceeded with an analysis of the divisibility of spaces. The guiding philosophy of the investigation was a reversal of the present concept: rather than dividing a large space into smaller ones, the entire subject must be viewed as an assembly and disassembly problem.

The investigation yielded at least four principally different methods to accomplish this. Of these four, the most promising was divisibility by turning entire sections of seating areas alternately from one self-contained space to another self-contained space. The back walls, having turned with the seats, become a soundproof divider. From this basic concept it was a short step to group several turnable seating areas into clusters and orient them either into one large, or into several secondary spaces.

This is the principle of the turntable divisible auditorium which has become known as the TDA.

The drawbacks of past methods, spelled out in the Seymour Challenge, were solved to a high degree of perfection. First, each sub-auditorium could have its own proper stage or teaching end which remained permanent, regardless of the direction into which the seats were

turned. Therefore, the sub-auditorium is a controllable architectural entity of shape, acoustics, esthetics, teaching equipment, lighting and so on, according to the dictates of a program. Because of the geometry of any auditorium, the floor of the turntable area is inclined. The incline, turning together with the seats, is retained in the sub-auditorium, automatically giving the best possible sight lines.

The heretofore greatest problem, that of soundproofness, ceased to exist. The very use of a turntable permitted the imposition of undreamed-of loads. It was now possible to construct a dividing back wall by conventional methods, such as metal lath and plaster. Any degree of sound-proofness could now be reached at a fraction of the cost of the best movable wall.

Finally, the turntable is one single moving component. The complete absence of mechanical gadgetry makes the system very reliable.

Even though the solution was near perfect, the possible cost of the turntables remained to be of concern. The economy of the principle therefore was closely analyzed and eventually proven on the basis of three approaches: in the first, it was compared with conventional structures of identical function; in the second, in comparison with wall-divisible systems; and finally on the basis of percentage return of the investment.

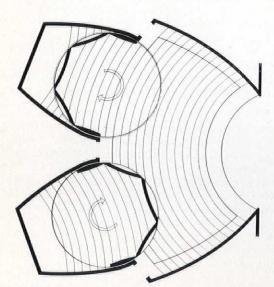
The first approach compared a conventional facility, consisting of a 1,600 seat auditorium and 4-200 seat lecture halls, with a TDA of 800 fixed seats and 4-200 seat components for four sub-auditoriums.

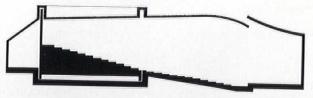
Comparing construction cost, the following becomes evident:

Conventional Facility

| Base cost of 1,600 seat auditorium Additional cost of 800 seats, (4 x 200) | 100% 50% |
|---|-------------|
| Total Cost | 150% |
| Base cost of 1,600 seat auditorium Divisibility feature (5% to 15%) av., (4 x 200) | 100% 10% |
| Total Cost | 110% |

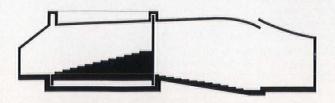
Therefore, by itself, the TDA has a cost base of 73% of





THE DIVISIBLE AREA IS UNITED WITH AND A PART OF THE MAIN AUDITORIUM

THE TDA, PRINCIPLE



THE DIVISIBLE AREA IS SEPARATED AND HAS BECOME A SMALLER AUDITORIUM BY A 180° CIRCULAR TURN.



The divisible walls in place, the minimum auditorium is quite attractive.

the comparable conventional facilities, not taking into consideration savings in land, maintenance and staffing. The second approach was a comparison with a triple coil wall, the only movable wall which approaches the acoustic properties of the TDA. Cost figures for a motorized triple coil wall vary between \$25.00 and \$30.00. For purposes of comparison, \$27.50 per square foot was used. To close off four lecture halls, seating 200 each, a minimum of 7,250 square feet are necessary. The cost of the wall divisible system therefore is nearly \$200,000. On the other hand, turntables which can support a lecture hall for 200, have a cost of \$15.00 per square foot. 6,800 square feet are necessary for four lecture halls, giving a cost of \$102,000. To this 7,000 square feet of back wall must be added at \$5.00 per square foot. Comparing all figures, the turntable divisible auditorium, possessing at least comparable mechanical properties, can be constructed for 69% of the equivalent wall-divisibleauditorium.

Last not least, a comparison of the efficiency of the investment was made. Again similar parameters as in approach one, showed the following figures:

Conventional Facility

1,600 seat fixed auditorium, 160 seats occupied; efficiency = 10%

800 seats in 4 separate rooms, 640 seats occupied;

efficiency = 80%Combined efficiency of utilization = 33.33%

TDA

800 seat fixed auditorium, 160 seats occupied;

efficiency = 20%

800 seats in 4 sub-auditorium, 640 seats occupied;

efficiency = 80%

Combined efficiency of utilization = 50%

Application in Education

It was well known even on the high school level that large group instruction would become a substantial advancement in the art of teaching. First, with more time available, better programs can be prepared. Then, a higher caliber teacher can be put on the job since, time for time, he replaces several teachers. Finally, the large group frees sufficient space and teacher's time to add the much needed small group instructions. In other words, it would widen the scope in both directions. The wall divisible auditorium was too inadequate a tool to accomplish the prime objective: large group instruction did not develop as was hoped.

As an educational facility, the TDA solved not only all functional and technical problems, but provided education with a new tool it simply did not possess before.

The facility is now ahead of its possible educational exploitation. In at least two TDA- equipped schools, an inservice training program has been initiated to train teachers for large group instruction. One much larger

facility, to be completed in early 1972, will integrate its facilities into the scheduling of solid subjects and eventually free 15 to 20 classrooms. The latter will then be converted into seminar rooms.

For the successful passing of a bond issue, a most significant advantage is the community aspect. With its incredible flexibility of spaces and capacity, the TDA is predestined as a community center of note. While one group of 200 may hold a PTA meeting, another group of 200 to 300 may listen to a talk, and yet some other group may be engaged in a discussion of a civic project, while all this time a larger audience may enjoy a stage production. If a function sells 600 tickets, only 600 seats will be in one hall and all other seats are available for other functions.

Planned projections show that the practical range of the educational TDA extends from an elementary level, with a capacity of 300 or even less, to a high school or junior college concept of up to 1,800 seats.

Civic Auditoriums/Convention Centers

Before the first TDA was constructed it was evident that its usefulness extended vastly beyond the range of educational facilities. Economically, the areas of highest efficiency are civic auditoriums and convention centers. No other type assembly room demands greater utilization than these structures. Inevitable low per seat use causes dependency on other facilities for their economic existence or outright subsidy. The TDA presents the only method in existence which makes multiple use and capacity adaptation feasible. Moreover, it provides an incomparable economic break-through since it contains in a single auditorium the practical equivalent of several individual auditoriums, theaters, meeting and recital halls, banquet and exhibition rooms, either to be used individually or jointly. Thus many separate functions can take place concurrently. The much higher seat use results in substantial increase in revenues. Also initial building costs are a fraction of any equivalent traditional facility.

Churches

A further use is in the field of religious structures. Like the typical auditorium, the religious assembly facility is inherently inefficient because of its once-a-week seat use. The TDA, for the first time, creates a church large enough for any occasion, since more than 50% of its capacity can be separated in less than two minutes to form a series of individual classrooms. This is accomplished by placing the classrooms around the periphery and adding or subtracting from the nave, as the scheduling of instructions or as services may demand.

The Star Forum

As a further solution of a problem, seating areas can be exchanged between interlinked rooms. In this method, one or two turntables can be added or deducted from adjacent halls, thus varying the capacity 300%. This application is particularly useful for an entertainment center, such as a four house motion picture complex. By continued correlation of desired-to-available seats for four simultaneous performances, one or two turntables areas can be added or deducted if ticket sales so indicate, with more space always available for the currently greater attraction.

Present Research

Auditorium Research, Inc., where the TDA is further developed, is currently studying new advancements of the TDA. It can be predicted that in the next decade much new substance will be added to this concept.



The Sixth Annual Region Ten Conference Construction Specifications Institute

Photography:-William Wysong

operation hospitality

February 11-13 was the time, the Broadmoor in Colorado Springs, the place—and the auspicious event was the Sixth Annual Conference of Region Ten/C.S.I. One of the slickest things at this year's gathering was Interstate 25 from Denver south to the Conference site. Late afternoon snow made the Monument Hill traverse an interesting experience. (Pinch-hit speaker, Jim Cagley of Texas will long remember his trip on Friday morning—he confessed to a slight state of shock as he faced the CSI mike shortly after arrival.)

However, if temperatures were chilly on Thursday evening, the hospitality at the Broadmoor Golf Club was "toasty!" There, ebullient members of Denver's Producers' Council hosted a cocktail reception complete with table-tops and good fellowship. Old and new friends mingled and marveled and had a king-size good time.

operation "Breakthrough"

Sometime during the night, the Weather Man joined C.S.I., and fair skies and sunshine greeted conferees as they hustled to the first session at 8:30 a.m. Dorothy Albers, Host Chapter President, graciously welcomed one and all—Colorado Springs Mayor Eugene McCleary tendered the keys to this booming town . . . one of the seven fastest growing cities in the U. S. of A., and "Chief Big Blow" (Regional Director Schmidt) delineated the reasons for his "nom de plume."

Program Chairman for the Conference, Terry Strong, then took over providing the introduction to Keynote Speaker, Thomas Barber, Regional Breakthrough Director/Department of Housing and Urban Development, Fort Worth.

Mr. Barber is a pleasant voiced gentleman with a subdued Texas twang, and a host of well organized material. He initially described the goals of Breakthrough . . . "a decent home, and suitable living environment for every American," The barriers to this ambitious aim are many and varied. but are keyed to the fragmentation of traditional construction methods and mores. Enumerated they are: 1) Financing - 2) Restrictive Building Trades Practices - 3) Shortage of Skilled Labor - 4) Restrictive Building Codes - 5) Zoning and Land Use —6) Fragmented Markets — 7) Lack of Research and Development, and finally, the Restrictive Small Size of the average Contracting Firm . . .

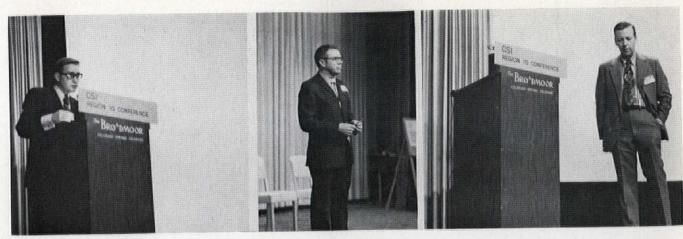
(a **Big** Home Builder builds 200 houses per year.)

Through "Breakthrough," H.U.D. hopes to encourage the fragmented construction industry to greater efficiency by its concerted attack upon all phases of the problems presently in force. The initial step has been made with the Demonstration Program (hardware phase) wherein proposals for the Best Industrial Housing Systems were elicited from Industry. From the 600 submittals received by June of 1969, 230 were for full systems. Twenty-two firms were invited to enter the design and development phase; plans are due for completion by June of this year. The Construction phase will begin at that time for 2,500 housing units on nine sites in eight states. Ground breaking, incidentally, has been accomplished at all of these locations. The final phase, of course will be the mass production and distribution of the product-in essence, the proof of the pudding.

Mr. Barber then showed schematic slides of the 22 proposals selected and explained the technology involved. Many of these were from newly formed companies and employed a number of interesting innovations. High rise units employed modules (some self-supporting to six floors, thereafter pigeon-holed in a steel







Breakthrough's Tom Barber

Region Director "Big Blow"

Don Worden, Butler Manufacturing

framing system). Many were European in origin including a jack-blocking system in which one floor can be erected in six hours. One interesting multi-family system created patios. gardens and pedestrian walkways above ground . . . "land in the sky." A unique and practical technology is found in the low rise system using plastic materials developed by the aero-space industry. A home with clay tile roof, adobe brick, floors and interiors is produced by "look alike" plastics, the only component not of plastic is the aluminum window frames. The manufacturer of this concept claims a 1,250 square foot home can be built for \$7.50 per square foot. Materials varied from largely wooden systems (Boise Cascade) to steel (U.S. Steel) and Pre-cast Concrete (six or seven of those presented used this material).

Hand in hand with the Design and Development phase has been the preparation of four volumes of Guide Criteria to be complete in May 1971. Compiled in cooperation with the National Bureau of Standards, the National Academy of Sciences, professional groups, the trades and Code authorities, this will be a continuing process which will move on-site following the first phase and follow through occu pancy with feed-back information to HUD. It is, of course, a performance document which will be followed by a quality control program in the plant, in transit and on site. And, again, Mr. Barber emphasized that Breakthrough was not a construction program . . . but one of basic research.

In conclusion, he said — "If Secretary Romney's prediction is accurate—and I quote, "By the end of this decade, at least two-thirds of all housing production in the United States will be factory produced. If this is true, Breakthrough could be writing the rules for a big game in 1980."

operation Systems

THE MANUFACTURER/Don Worden, Space Grid Product Manager, Butler Manufacturing Company, Kansas City, Missouri.

We were interested to learn that Mr. W. is an architectural graduate of Montana State University, where he practiced architecture for nine years before moving to Arizona, where he spent four years in Architecture before joining Butler. (He was also kind enough to remember the Symposia Team from the Santa Fe WMR Regional in 1966 which must set some sort of record for total recall.)

Butler, akin to other systems manufacturers, first entered the field in 1961-'62, when under a grant from the Educational Facilities Laboratoriesthe SCSD Specifications were written. Designed to break up the traditional cubicles in school buildings, the program's principal aim was educational flexibility. Four keynote components comprised the system: 1) Structural system - 2) Lighting/Ceiling - 3) Air Distribution and Mechanical and 4) Movable and Demountable Partitions. The inducement to manufacturers involved bids on 22 schools in 13 California school districts amounting to \$30-\$40 million. Although Mr. Worden's company did not get the bid, they were responsible for the first school built under the new concept. Located in Las Vegas, Nevada, and built from plans which had been constructed previously, the construction time was cut from 11 to 6 months with a far higher percentage of field labor than is presently required. He further told of the growth and development of Butler from the steel watering trough in 1900 to the architectural systems division which he now heads. In this regard, he stressed the importance of the architect's role with 95 per cent or more Space Grid systems installations through architectural firms.

Not all buildings, he cautioned, are "systems" oriented . . . but where practicable substantial savings can be made on field labor costs (high), on speed of erection and on cost and quality controls by the architectural firm. Don's slide presentation showed the complete erection sequence, the many types of fascia, structures and materials available, ceiling and lighting components, and the many design options offered. These included exposed structural plans . . . akin to the space frame but at one third the cost and of still another pure space frame Butler system for domes, hyperbolic shapes, etc.

In conclusion, he pointed out to C.S.I. members the importance of an early decision regarding the use of the "systems" approach," and of the increasing use of the Pre-Bid. Under the pre-bid system, architects draw minimal plans, obtain bids on any or all systems' approach," and of the increascompute costs and produce fewer working drawings.

THE UNION/Anthony (Pete) Ochocki, Director of Organization, International Brotherhood of Carpenters and Joiners. Washington, D. C., acting as a pinch-hitter for Joseph Walsh, who was attending the Building Trade Council's meeting in Florida. Mr. Ochocki made the usual apologia vindicating the craft union's position upon apprenticeship, high wages and a somewhat ambiguous attitude toward industralized construction. He stressed the fear felt by labor as they see the work which used to come to the job site as raw material now being preassembled in factories. He protested, however, that labor was not really against systems but looking for ways to make a living in their chosen way of life. He reiterated labor's desire to cooperate within the Industry at the same time emphasizing that labor is





not the only factor in the rising cost in construction. Mr. Ochocki left his auditors somewhat baffled as to labor's real position regarding industrialized building.

THE DESIGN PROFESSIONS/James Cagley—Caudill, Howlett, Scott, Houston.

Mr. C. was summoned hurriedly from the bench and into the line-up when Jonathan King became ill at the 11th hour. A most personable gentleman, he took all in good part, even his icy trip from Denver to Colorado Springs. Mr. Cagley joined C.R.S. in 1960, and is presently Vice President as Manager of their Structural Engineering Department.

He began by defining "Systems or Industrialized Building as the integration of planning, design, programming, manufacturing, site operations, scheduling, financing and management into a disciplined method of mechanical production of Systems." In essence . . . everything from scratch to completion. He went on to say that everyone is more or less familiar with the "rationalized system" in which traditionally, some prefabricated components were incorporated into the whole. Again quoting, he defined "Building Systems as a kit of parts with rules about the way these parts may be combined to achieve some desired performance. The Closed System being one of the kits of parts with one set of rules-the Open System as many kits of parts with one set of rules."

Mr. Cagley again reviewed the original SCDS material covered earlier by Mr. Worden, and then, with slides, explored a number of other Systems approaches being used in school systems. These included Toronto, which employed a steel frame with 10'x10' precast panels. This panel fabricated with either no windows, one window or two windows imposes considerable

restraint upon the architect, but is to Mr. Cagley's knowledge one of the first systems to include the "skin."

Quite understandably his material was not too well organized, and he jumped about a good bit . . . Detroit, California, Montreal, Florida and Long Island—indicating if nothing else the size and scope of the C.R.S. practice. Highly touted for design, Mr. Cagley's slides of C.R.S. projects revealed nothing of this potential, they were largely a parade of tasteless and innocuous boxes . . . even Mr. C. was somewhat apologetic.

He did point up a trend in Industrialized Building. The architectural office writes a set of performance specifications, pre-bids are taken amounting to 35-40 per cent of the contract. Upon selection of the systems, a letter of intent replaces the contract, working drawings are reduced to a minimum, and the specifications look rather like an addendum. The drawings and documents which Mr. Cagley showed the audience were certainly far from imposing; but then neither were the completed structures In order to meet time schedules, his firm has retained the services of a Construction Manager. Pre-bidding does enable the architect to determine costs in a more definitive way. Mr Cagley feels there must be acceptance of the pre-bid concept and to work. as a designer, within the systems parameter to utilize the Industrialized Building concept.

? ? ? and answers

The Panel Discussion which followed was most informative. Mr. Barber for instance, admitted the Government has made some mistakes in location and density of housing projects. HUD has one on Desire Street which he says the "Black Panthers operate for us. It's peaceful now—we don't go in—neither do the police."

Asked if Unions were retraining their people to meet future change, Mr. Ochocki said there was no need . . . those who cannot meet the criteria for apprenticeship can be trained for factories.

Specification documents for industrialized building will be performance specs, and Mr. Cagley commented that at C.R.S. they have a standard performance spec on schools which they can pull out of a drawer and adapt to the local code.

Mr. Ochocki said specification writers sometimes ignore the traditional jurisdictional lines and create an instant dispute. He suggested a discussion by all parties concerned might prove helpful.

To the question as to whether "systems" would make architects and engineers obsolete, Mr. Cagley sees their future role as specifiers of materials and whole systems; the engineer and architect in private practice will become checkers rather than instigators, although they may also develop future systems. Mr. Worden suggested that the Construction Management Divisions now being created in large architectural and engineering firms will proliferate considerably in the next 10 to 15 years. "All of us will come a lot closer together than we are today." Jim Cagley said the time is coming when competition for school contracts will not be another architect but people like G.E. and Westinghouse.

The intent of "Breakthrough," Mr. Barber said, was not low cost housing, but an attempt to find a better way to build a house. On the wage differential between on-site and factory labor, Mr. Ochocki admitted a reasonable difference was acceptable. On the training of minorities, he said they have tried in every way, but will not lower standards. Actually young people today are not interested in





working hard. We can't, he stated, "stand outside the high school, knock 'em on the head, bring 'em in and then get 'em on the job site and do their work for 'em." He also reiterated that the Philadelphia door case still stands, and in some areas, local unions are still unreceptive to change. Although "we are trying to cooperate, on the job site we still want jurisdictional lines clearly marked and good wages. We're not getting soft!"

The classic comment, however, must be credited to "Big Jim" Noone, who had (with the lightning speed of a computer) figured out that one of Mr. Cagley's projects cost \$40.00 a square foot. "We're not objecting, you understand," quipped "Big Jim." "We would just like to know where you find those kind of clients!"

operation Communications

The Denver Chapter reluctantly accepted this assignment—a panel designed originally to provide the scenery for CSI Publications Committee Chairman, Clyde V. Pearson of San Francisco. At the zero hour, the "piece de resistance" did not appear and the scenery was left to stand alone. The moderator was Dick Lehman, Denver Chapter President, with Jim Barr (former Chairman of the Publications Committee), Elizabeth

Trunk (Editor/Symposia) and the valiant visitor from Phoenix, Dick Perrell, who graciously accepted the charge as he walked out the door to catch his plane for Denver. Mr. Barr, as is his wont, was well organized and verbal . . . he, in fact, provided the framework used by the panel . . . covering all facets of Communications. Mrs. Trunk provided an undelivered speech (and little else). Mr. Perrell, a little gun-shy perhaps at his debut in Region 10, resembled nothing so much as the "reluctant dragon." Mr. Lehman asked for audience participation, and this was cheerfully given although from an increasingly smaller audience as this thoroughly dull affair struggled to fill up the allotted time. Our only comment would be that those who departed early were probably right-we all could have had a more enjoyable time "communicating" in the Tavern.

operation Banquet

This annual opportunity for CSI ladies to don their bestest "shawls and bonnets" was unusually successful this year. Three prime factors contributed—the Broadmoor setting which always always makes you wish you had the money to go with your attitude; John Ten Eyck, a favorite Connecticut Yankee at anybody's Camelot, was in rare form as Master of Ceremonies,

and the principal speaker, Governor Jack A. Campbell of New Mexico, who heads the Federation of Rocky Mountain States. Although delivered with a light touch, Governor Campbell presented his listeners with a sincere challenge for development of the Region without the loss of our many environmental advantages. He pointed up our needs for transportation and economic development, but further emphasized some of the things which we do not need in order to preserve our delicate ecological balance.

Dorothy Albers was hostess at a delightful "nightcap" affair following the banquet. And to her go honors for Classic Comment II at this year's Region 10 Conference. The Governor of New Mexico had just departed when Dorothy slipped off her shoes—"I've been wanting to do that," she sighed, "all day!" And a host of foot-weary ladies enthusiastically joined the club!

operation COMSPEC

The preface to the three part presentation of the new automated Specifications system COMSPEC was provided by Executive Director Joseph Gascoigne of the Institute. In part, he stated, that less than 6 per cent of architects and engineers in the construction field made use of automation of any kind up to and including the electric typewriter. He further

Governor A. Campbell







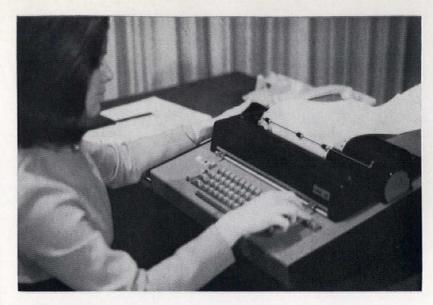




Page 28 Symposia/April, 1971

hoped that the demonstration of COMSPEC, the automated specifications developed through the CSI Research Institute and implemented by the Pacific International Computing Corporation, would dispel some of the apprehension felt by many practitioners for computers and their use. A film was screened giving an over-view of COMSPEC/CONCOM, which provided an introduction to Don Whitesel of PICC, who with slides and commentary explained the "nitty-gritty."

Automated specifications have come about through need, stated Mr. Whitesel, in an effort to do away with a "sea of paper." COMSPEC is not a "master specification," it is a means of providing computer use in the implementation of a "master spec" which the architectural or engineering office may develop on their own, or may use one provided from another source (i.e.:AIA/PSAE). In essence, three basic services are provided. Class A Service puts a terminal in the design professional's office-it is, of course, nothing more nor less than a typewriter which is hooked up to the Computer Center via telephone lines. With a Master Spec (yours) in the memory file of the Computer Center. necessary editing for a specific project may be done very quickly. If an office elects to use a less expensive system, sections of the Master Spec requiring changes may be mailed to the Computer Center, returned for further editing and/or approval, and returned. Pay for such services is based only upon need. Advantages are, of course, obvious. COMSPEC eliminates much repetitive typing, proofing, etc. The computer, Mr. Whitesel assured his audience, does not make mistakes in typing or in spelling. The layout of the Specifications Document is also made by the computer, encompassing any and all changes made in the Master Spec, typed at 180 words a minute and with the print-out capability of 500 pages per hour. COMSPEC



On the COMSPEC Line (girl not included in deal!)

does not, in any way, alter the traditional method of preparing specifications for a given project with a Master Spec provided initially—it merely eliminates "cutting and pasting," hours of secretarial typing time and proofing and editing. Mr. Whitesel urged those present to give COMSPEC a "trial run"—he was certain that the computer would answer not only many problems during peak load periods, but prove an economic advantage.

A demonstration was held following the business meeting, at which time CSI members were given the opportunity to work directly with the PIC Computer Center in San Francisco . . . via direct telephone hookup.

operation Business

The business meeting which was held concurrently on Saturday morning with the COMSPEC presentation included reports from all Chapter Presidents, Joseph Gascoigne of the Institute, Regional and Western Section Directors and Mr. Charles Carroll, FCSI, of Baltimore, The complete re-

port of this meeting, as well as that covering the entire Conference, is being prepared by the Pikes Peak Chapter and will be mailed to all Region 10 Chapters.

We would only append this word in re: Dick Perrell, who attended the Region 10 Conference as the representative of the Phoenix, Arizona, Chapter. He explained that the ties of many years with Region 11 have been difficult to sever, but the warm hospitality accorded them, Dick and his wife, Nancy (a charming gal) had altered his views somewhat. "Our thoughts going home," he said, "are very different than those we had coming here." He is looking forward to a happy association with Region 10, and hopefully a meaningful contribution from the Phoenix Chapters. Mr. Perrell also had at hand some beautiful brochures showing "The Wigwam - Arizona's Country Club Resort," where the joint Region 11/10 Conference will be held October 7-10, 1971, Look this one over, CSI'ers—like Momma says about those carpets . . . "Plush!"





Symposia/April, 1971

Environmental Location of EHV Transmission Lines

(One of the outstanding features of the national convention of the American Institute of Landscape Architects held in late January was a presentation by Mr. MacDonald on this topic. "Environmental planning for utilities is an important phase of landscape architecture which needs more public exposure," "Mac" said at that time. "People need to realize that landscape architecture is not just paying lipservice to solutions of environmental problems, but that we are uniquely qualified to work out the preservation and improvements to our environment. It

is time for the public to recognize this and call upon the profession for help." Mr. MacDonald's Arizona firm is presently retained by two of the participants in the Navajo Project to do environmental planning for Electric Transmission Systems. His article describes in some detail the thorny path of such an undertaking. In addition to serving on the Symposia Board, "Mac" is Executive Vice President of A.I.L.A. and Chairman of the Advisory Commission on Arizona Environment.)

by: F. J. MacDonald, A.I.L.A.
Contribuing Editor on Landscape/Symposia

Environmental Consultant — this is one of the glamour disciplines.

As in most glamour professions, no one in the outside world knows exactly what is involved; hence it has to be glamorous!

Our firm is retained by two large power companies involved in transporting power from a new power generating plant to switching stations. One station is about 250 miles west of the plant, one about the same distance south. It is impossible to tell the entire story of environmental line routing in a limited space, but a few of the highlights will give a good impression of the factors involved. When first approached by the power companies, we told them, "Everyone in Arizona knows where we stand, environmentally. We want what's best for Arizona." When the companies agreed to this, we thought we'd better reinforce our statement with, "The environmental route will probably cost considerably more money . . ."

"You pick the route. All we want is to be sure it is the best one. One that nearly everyone can accept."

We set up the basic criteria for programming the route:

- The power must be delivered. We can't afford power shortages and brown outs. It would make everyone unhappy.
- We have to protect the environment. We can't afford to let it be destroyed. It would make everyone unhappy.
- We have to locate the line where it can be built within reasonable cost. If it costs too much, the price of electricity will rise too much. It would make everyone unhappy.
- 4. We have to put the line where it can be maintained and protected. These 500KV lines have a capacity of serving a million people with electricity. If it is "knocked out" by forest fire, earthquake, sabotage or whatever, it will cause a serious power outage. It would make everyone unhappy.

We do not want everyone to be unhappy.

Our own environmental criteria (made up out of thin air) calls for hiding the lines behind hills, down in canyons, below skyline, out of sight.

Someone must have gotten wind of our criteria, since we see the USDA and USDI have since "come out" with almost identical ones. (We should sue!)

We discarded the idea of drawing a straight line from power plant to switching station. This is the old way. Unfortunately, the two terminals are always so located that such a line invariably passes through the center of a sensitive area — such as the Grand Canyon, Lake Mead or some other insignificant landmark. (Incidentally, do you suppose anyone would notice if we slipped the line down along the bottom of the Grand Canyon? Oh well, someone would probably notice it and complain.)

We found that the best exploration is by light plane and helicopter. The light plane can fly low enough to get a good overall picture of the terrain. The helicopter goes in low and provides opportunity to get photos — off the ground and on the ground. The big problem with the helicopter is the rough ride — seats are hard and the engine is unsteady. Also, the air conditioning leaves something to be desired!

We keep remembering, too, that the towers that carry the line are about 100 feet tall at approximately 1,700 foot intervals, not too easy to hide.

After dozens of rolls of films are expended, we try to pick several possible routes (that will not make people unhappy).

Then we start talking to people. We can fly over miles and miles of quiet empty countryside and see no signs of activity. But men'ion a power line and it's like hitting the dollar jackpot in Las Vegas!

Everybody and his brother pops out of the woodwork with a project of some sort! These projects must surely overlap in order to get them all into the available space! One very nice thing about environmental work is the fact that we get to meet so many people. They are all so nice and friendly, too . . . as long as the line goes over on the "other side." (We've found, for instance, that city

planning departments take a very dim view, for some reason, of having EHV lines and switching stations in residential areas! A situation probably caused by lack of communication between power people and planning people.)

We do find that many times people make strong statements about things they obviously know nothing about. At a large hearing on the line route, a lady carried a baby in her arms, led a small boy by the hand up to the microphone, and pleaded tearfully, "Don't let them destroy that beautiful landscape. My little boy will want to go there when he grows up!"

We, in the audience, looked at each other in some surprise, since this particular stretch of country was one of the most monotonous, desolate, pieces of terrain that exists in the state. We could imagine the boy, when he got older, rushing up to see the "beautiful landscape" his mother so successfully saved for him. His eyebrows would shoot up and he'd say, "Yech! What shall I do with this?"

Another interesting facet is the fact that people want to preserve the environment someplace other than where they live, while the small communities affected by power lines send in letters from the City Council saying, "We wish the people from the larger cities would stay out of our area and not try to save us! We want the power lines. There is nothing here that can be hurt, and we need the tax base they provide!"

It is most interesting. And we certainly do not want people to be unhappy.

"What are we preserving? And who are we preserving it for?" This is what we keep asking ourselves.

We are trying to save what we think is best for the greatest number of people.

After we chose the route that most nearly fits all criteria, we prepare a presentation.

We have slides showing scenes from both the alternate routes and our selected route. We prepare environmental/land use maps delineating the various suggested lines. All during the preparation time we are talking to people, agencies, conservation groups — anyone we can find who is interested.

When the presentation is all set, what happens?

Someone comes up with a brand new idea for a route!

Back to the drawing board — back to the light plane — back to the helicopter!

(We wonder if anyone is working on a plan to deliver power by satellite.)

Presently, the routing is complete and we are showing the presentation to various interested groups . . . the Conservation Council, Sierra Club, the Advisory Commission on Arizona Environment.

We still wonder if there isn't another solution. Couldn't we figure some way to convert air pollution to electricity? This would be a real winner!

On Passage of the Denver Sign Code

(With appropriate apologies to Sir W. S. Gilbert, the Mikado and the Lord High Executioner.)

Ah joyous day! It's happened! The sign code has been passed.

And we've had 'em on our list, our quite extensive list
Of society offenders who surely should be gassed
And who never would be missed—who never would be
missed!

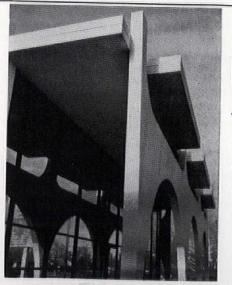
Those horrid plastic banners whose undulating dance Made every road and highway a place of pestilence. And those jumpy darting displays of bare electric lights Which oft impaired our vision—we've had 'em on our list; Those flashing, blinking arrows sent flaming through our nights.

We don't think they'll be missed! We're sure they won't be missed.

Those miles and miles of billboards of monumental size Which made you wish quite fervently you hadn't any eyes; A space has been reserved them, close by Satan's fires With an ever faithful stoker who never, never tires. We've had 'em on our list—our quite extensive list And they'll none of them be missed—but none of them be missed.

Farewell to signs heaving mighty heads up into the blue . . .

The task of rounding out the list, we'll leave that up to you. But, it really doesn't matter whom you put upon your list; For they'd none of 'em be missed—they'd none of 'em be missed.



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ARIZONA



John Dellisanti, President Arizona Society American Institute of Architects

(Let's thank Mary Smith of the Central Arizona Chapter/ AIA for this sprightly "life and times" of Arizona's new fearless leader.)

John Dellisanti, AIA, recently assumed his duties as 1971 president of the Arizona Society of Architects. He has resided in the Phoenix area since 1954 and has been active in AIA affairs since 1961. Other offices he has held include treasurer, vice president and president of Central Arizona Chapter, and he has also served three years on the Society's Board of Directors.

John was born in Brooklyn, New York, and was educated at Brooklyn Polytechnic Institute of Science and Technology. After some 17 years in Arizona he has lost most of his Brooklyn accent but none of his love of sports, and he has helped direct all three sons, Steve, Mike and Jeff, through Little Leagues and Pop Warner football. He also indulges his love for fishing whenever his busy schedule permits.

Community and church activities also claim much of his time, in fact, his lovely wife, Pat, says he recently grew a four-weeks beard before he stayed home long enough for her to notice.

John is an outspoken advocate for the architectural profession, involved in everything from promoting professional causes before the State Legislature to explaining architecture and encouraging young people at high school career days.

But home is where he'd rather be than anywhere else and when he's there you might find him contentedly "jamming" with some of his architect friends. They say Al Hirt has nothing to fear from John's trumpet but it's a source of great enjoyment to John and no one else is willing to commit himself on the subject. After all, he is "El Presidente" this year.

IDAHO



Wendell A. Higgins, President Consulting Engineers/Idaho

On February 8, Mr. Higgins accepted the Prexy's gavel from John L. Hoffmann at the CE/I semi-annual meeting held in Boise. It is thanks to Symposia's Mr. Hoffmann that we have such a fine and informative "life and times" on Idaho's new fearless leader.

Mr. Wendell A. Higgins, Principal Engineer of Barton, Stoddard, Milhollin & Higgins, Division of International Engineering Company, Inc. is a native of Boise, Idaho. He maintains civic interest through the Boise Chamber of Commerce and through constant engineering improvement of the community. Following two years service with the U. S. Air Force in Korea, Mr. Higgins served as assistant to the City Engineer of Moscow, Idaho, where at that time he also graduated from the University of Idaho with a B.S. degree in Civil Engineering.

In 1965 he became Vice President and a principal owner in the firm of Barton, Stoddard, Milhollin & Higgins, a culmination of approximately 10 years of service and experience with the predecessor firm. His experience with the firm led to his extensive ability in industrial structures and other buildings and in highways and Interstate bridges.

He maintains an active participation in the American Society of Civil Engineers, Southern Idaho Section as past president; in the Idaho Society of Professional Engineers, Southwest Chapter as past president; in the National Society of Professional Engineers; in the Consulting Engineers of Idaho as President; and in the Consulting Engineers Council. As a professional engineer, Mr. Higgins is registered in Idaho, Colorado and Utah.

WYOMING



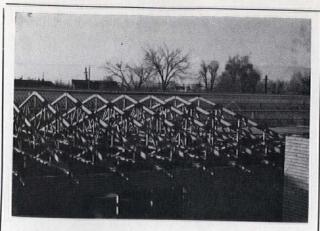
Eugene F. Dehnert, President Wyoming Chapter American Institute of Architects

Gene assumes a very important role in this year of 1971 as President of the Wyoming Chapter host for the Western Mountain Regional Conference in September. And mighty well qualified for the job, too! Born in Montana, he is a graduate of Montana State University with continuing education at Colorado University in Fall Out Shelter Analysis, the Montana Higher Education Facilities Workshop in 1966 and the Architectural Barriers Workshop in 1969.

He served with the Second Division 1946-'47 and was recalled as a Lieutenant in the Corps of Engineers serving 1949-'53 with Design and Planning, Far East Command, Tokyo where he was a member of the Far East Society of Architects. He began the private practice of architecture with Nordquist and Sundell in Billings, joining with Bob Corbett in 1960 to form the firm of Corbett/Dehnert Architects in Lander, Wyoming. Bob moved to Jackson in 1964 to open a second office for the firm. Gene is licensed in Montana, Wyoming, Idaho, North Dakota and Iowa.

He and his wife Charlotte have a lively family — James, a sophomore at Stanford U's overseas campus at Beuttlesbach, Germany; Lon, a high school senior; Bruce, a freshman; daughter Gail who is a 6th grader and son, Kelly in 3rd Grade. Both Charlotte and Gene enjoy wheel thrown pottery making, Charlotte writes a column for the local paper "just for fun," and Gene does charcoal drawings and metal sculpture. He is a member of Rotary and the Architectural Commission for the Episcopal Diocese of Wyoming.

We'll all get the chance to know this great guy much better come September.



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architect: Walter Simon contractor: Len Builders

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DAVID LINK, Editor-in-Chief, Professional Builder Magazine. "7 S's for Apartment Success," from sex to systems.

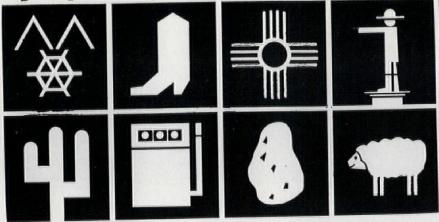
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symposia/around the region



arizona

Arizona Environment

Few states among the fifty are as environmentally oriented as Arizona . . . there are a lot of people in Arizona who really care! Latest evidence of their concern is the "Decade Conference on Arizona Environment" sponsored by the Advisory Commission on Arizona Environment and scheduled for April 29-May 1 at the Arizona Biltmore in Phoenix. The Commission firmly believes the '70's hold a promise of better days especially if Arizonans gather together to produce ANSWERS to problems rather than argue and not face facts. This is the prime target of the Decade Conference.

Allen H. Seed, Jr., Executive Vice President of Keep America Beautiful, New York, will keynote the conference with his authoritative "First Step for Quality Environment." During the balance of Thursday, conferees will learn how decisions are made and where to go for help in community problems. Dinner in the evening will be dedicated to The Role of Cities and Towns in Attaining Quality Environment for Arizona.

Friday morning, April 30, will be spent delving into the "Problems of the Seventies" . . . and the afternoon session will be devoted to "Answers" with distinguished industrial, governmental and professional people on hand—not to argue—but to apprise conferees of the facts about the curtailment and abatement of those problems concerning not just Arizonans, but everybody!

Saturday morning, May 1, will feature a presentation of just what is on the drawing board for the '70's, and will conclude with a noon luncheon programmed—"The Role of the Citizen in Attaining Arizona Environment."

The Decade Conference—akin to Arizona's fine Town Hall program—sets

which other areas might well learn more about and emulate. If you would care to learn more . . . the Advisory Commission on Arizona Environment is located at 206 S. 17th Avenue, Phoenix, Ariz. 85007. Chairman of the Commission is F. J. MacDonald, A.I.L.A., Symposia's Contributing Editor on Landscape.

Acrosanti 3

It is once again our pleasure to remind architectural and engineering students of the opportunity to work with Paola Soleri's Cosanti Foundation in Arizona. As in the past, these workshops take place at Agua Fria and Acrosanti 3 will continue production of kiosk shelters, create sheltered areas for foundry work and community activities, additions to the kitchen area, and a second septic tank, and landscaping of the flat areas south and west of the camp. Many other activities are scheduled including testing and excavations for the foundations for the apses and columns. Starting dates for this year's workshops are April 26, May 17, July 19, August 9

and 30, September 2 and October 11. Selection is made on the degree of experience and the mailing date of application. If applications and further information are not available, interested students may write the Cosanti Foundation at 6433 East Doubletree Road, Scottsdale, Arizona 85253.

colorado

Ray Retires

Carl J. Ray, Sr., has retired from active practice as a consulting materials engineer after almost six decades of professional service. Mr. Ray began his engineering career in 1913 with Castalia Portland Cement in his native Ohio. He was employed by the National Bureau of Standards on Army detached service during World War I, moving to the Denver Laboratory in 1919.

In 1924, Ray and the late George Pierce founded Pierce Testing Laboratories, the first independent materials laboratory in the Rocky Mountain area where for two decades he pioneered procedures for soil and foundation investigations. In 1948, Commercial Testing Laboratories was founded by Ray with his son, Carl, Jr., who had just completed his engineering education after service in World War II. At that time, there were three employees-today a staff of more than thirty operates in one of the largest and best equipped laboratories serving the western portion of the nation.

Upon his retirement, Carl Ray, Sr. was honored at a banquet and presented a trip to Hawaii by Carl Ray, Jr.—a token of the company's appreciation. Mr. Ray, Sr. will continue to serve as a director of Commercial Testing Laboratories in Denver . . . a member firm, incidentally, in the



Meet the Leaders! Here are the 1971 officers of the Central Arizona Chapter/AIA nicely posed for a group photo. Left to right: Dwight L. Busby, president-elect; Gerald L. Clark, treasurer; Peter A. Lendrum, secretary and Herber W. Schneider, president. (Photography: Phil Stitt)

a standard of excellence and concern

Consulting Engineers Council/Colorado.

CSI/Colorado

Denver's Chapter met at the usual time and place—March 10 at the Applewood Inn—to take a good "Look" at the new lumber grading standards. As bad as that pun is, it was just too obvious since the Denver Chapter's guide to "Woodland" was Larry Look, who is with the Market Services Department of Western Wood Products. The slide presentation reviewed the Standard which is the largest change in design and grading in this industry in many years.

It was Tuesday, March 16, at the Quality Motel in Colorado Springs for the Pikes Peak Chapter members—just now catching a deep breath following the Region 10 Conference. Ray Bertholf headed a panel of several members for a discussion of "Cleaning Up." (There is a Pink Sheet out for review with a deadline of April 19 on it!) Since this is a subject which affects almost everybody on the job—Pikes Peak should have had a good turnout for this one.

"Ulysses" Wakefield

Colorado's Architectural Secretaries Association met in the Vineyard Room at Writer's Manor in early March for three very important reasons. New



1971-72 Officers of the Colorado Chapter/ASA—Seated (left to right) President Joan Powell (Grabow Associates); Vice President Mary Ann Hahn (C. Neal Carpenter); Secretary Denise Allen (Hobart Wagoner). Back row: Sue Frison (Colorado Central Chapter/AIA) Director; Director Doris Davis (Lusk & Wallace); Immediate Past President and Director, Jo Haller (Muchow & Associates) and Treasurer, Beth Phillips (Hornbein and White).

officers were installed, the ASA, charming ladies all, honored John Kilbey, President of the Rocky Mountain Chapter of Producers' Council (and said some very nice things about Symposia) and enjoyed a cruise of the

Aegean with Don and Jean Wakefield. The slides were beautiful and encompassed not just Athens, the Parthenon, etc., but also included some of the islands including Rhodes and Crete. Don, with an able assist from pretty



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Ulysses and Magic Lantern

wife, Jean, left everyone present asking (nay, begging) for more. You can be sure that "Ulysses" will be back with this group for a tour of Rome, Florence, etc. Don, as boss man of the Structural Clay Products Institute, was sorely tempted by those 4,000 year old bricks, but commented it was easy to resist if you remembered that the Greeks are a little narrow minded about souvenir hunters.

montana

Billings Sweeps Field

The three top awards in the 1970 Awards Program of the Montana Chapter of the American Institute of Architects went to Billings-based architectural firms at their big Winter Meeting held in Great Falls. Top honors went to the Westside Elementary School (see the March issue/Symposia) designed by CTA Architects, Engineers, Planners. An open-space structure designed to house a flexible educational concept, the Powell, Wyoming school was displayed at both the AASA Exhibit in Atlantic City and the National School Boards Association Convention in Chicago. An award of merit was presented to the Architectural Design Group for a residence built for Mike Barovich . . . a most interesting two story, split level construction on a steep, 50 foot hillside lot on a limited budget of \$16,000. E. F. Link and Associates of Billings received a Merit Award for the design of St. Thomas the Apostle Catholic Church . . . a 700-750 seat sanctuary, second phase of the parish center.

Presentations were made by William H. Kuhr (Davidson and Kuhr, Great Falls) president of the Montana Chapter. The competition was open to any architecture completed since January 1, 1965. Jurors included Max E. Kuhr, an architect from Havre; Richard I Shope of Shope and Jackson, Architects in Helena, and E. James Bronson, associate professor of art at Northern Montana College in Havre.

nevada

State Office Building

This is really in the nature of a

"flash," and we are looking forward to additional material on this \$5 million project. The winning design in the competition for the State Office Bu'lding has been selected, from four entries, by the Nevada State Planning Board. The winner! A design submitted by Moffitt and McDaniel/Architects of Las Vegas under A.I.A. rules of anonymity and judged best by a jury of noted and impartial archi tects. Entries were invited by the state from Moffitt and McDaniel, Zick and Sharp, Tate and Dobrushky and Daniel Mann Johnson and Mendenhall. Congratulations to M and M! That's not a bad commission, fellas!

new mexico Installation/Santa Fe

On March 6, writes Brad Kidder, FAIA, our man in Santa Fe, "some fifteen couples assembled at the Legal Tender (how's that for a name?) in Lamy for the purpose of installing Ted Luna as President of the Santa Fe Chapter. Max Flatow, FAIA, Regional Director for the Western Mountain Region, and Pat Wood, President of the New Mexico Society of Architects, lent prestige to the affair . . . and the lovely wives of the members provided the air of charm! It was a splendidly informal affair — no speeches, but plenty of chances for all of us to get and know Max and Annwhich was perhaps the principal reason for the party. It was a highly successful evening and much enjoyed by all."

Brad also appends some information concerning the two proposed Motel-Convention projects now "in the works" for Santa Fe. One is a Motel-Convention Center for the Loretta Academy site . . . nothing definite, he writes, but-"The Chapel and the Miraculous Stair Case" will be retained and preserved. The Motel Unit will probably be five stories high (as is La Fonda), and will, to the extent possible for such a structure, reflect the Santa Fe style of architecture. It will be tastefullly landscaped and should be a rather delightful addition to the center of the city. At any rate,

it cannot be worse than the old conventional red brick buildings which presently have little charm. The high brick wall will come down on the south, north and east sides which will change the appearance of the central city, but it should be an improvement, and so should the second proposed motel to be built on the Urban Renewal site some five blocks distant." In addition to these important items of interest . . . Mr. K.'s usual excellent Legislative Report is to be found under the Legislation/'71 feature in this issue.

CSI Spec School

We haven't at hand the final numbers on the 1971 Specifications Course sponsored by the Albuquerque Chapter of CSI, but it would appear it is bigger and better than ever. It is particularly gratifying to know that 25 students from the New Mexico University Department of Architecture are enrolled and will receive two credit hours for the course. An even larger number of other members of the architecture/engineering/construction community are enrolled just to "get the smarts" on the subject of writing good specifications. The Specifications Course was initiated originally by the Denver Chapter, but Albuquerque has expanded and augmented the format, incorporated it with the Department of Architecture at NMU, and generally made it a part of a continuing industry/community project. Right on, Albuquerque!

oregon

Design Honors

Our appreciation to Stephen Mayer, AIA, of Eugene, Oregon, who so thoughtfully sent us the information on the Ninth Honor Awards Program sponsored by the Southwestern Oregon Chapter/AIA. Mr. Mayer, by the by, was chairman of the 1971 Awards, and stated that the program is designed not only to "single out distinguished design," but to "bring to public attention the variety, scope and value of architectural services."

Two Honor Awards were presented . . . The School of Law at the University

of Oregon designed by the Eugene firm of Wilmsen, Endicott, Unthank and Associates and a Residence for Kenar Charkoudian from Unthank, Seder, Poticha, another Eugene firm. Five merit awards were presented for new structures, building additions and remodeling . . . they were:

• The Mohawk - Northgate branch of the U.S. National Bank of Oregon in Springfield and designed by Lutes and Amundson of that community.

• The Charles E. Nelson Residence in Tumalo which is near Bend in central Oregon and designed by Wilmsen, Endicott, Greene, Bernhard and Associates of Eugene.

• The Robert S. Harris residence in Eugene designed by the owner for his young family.

• The Reedsport High School Auditorium Addition designed by the Coos Bay firm of Harlan, Gessford and Erichsen.

 The Eugene Federal Savings and Loan Association Building on the Eugene Mall which is the work of Morris and Redden/Architects.

Each of the architects and owners received Award Certificates at a banquet held Thursday, February 18, in Eugene. Jury for the 1971 Awards Program included Marion D. Ross, head of the Art History Department at the University of Oregon's School of Architecture and Allied Arts; Howard Lorence, manager of the Century Division/Bohemia Lumber Company, Eugene; Jim Harris, Tacoma, Washington, architect and Saul Zaik, architect from Portland.

We would accord Symposia laurels to the talented winners, and again thank Mr. Mayer for keeping us "in the know."

Moment of Truth

The Portland Chapter/CSI called their March meeting a "Moment of Truth" for anyone who has written and/or used a lath and plaster spec. The panel discussion centered on a discussion of a selection of lath and plaster specifications recently submitted for the competition sponsored by the Chapter Technical Committee. Program Chairman Paul Wilson/Architect served as moderator and the panelists included Charles F. Clay, Northwest Lath and Plaster Bureau, Seattle; Al Hansen of the same group, Architectural Consultant in Oregon; Gordon Todd, G.C.; Bill Shearer and Dick Cronn, Jr., Plastering Contractors; Jack Ross, Business Manager of the Plasterers' Union and Bill White of United States Gypsum. This is a part of an on-going series of programs treating building materials presented by the Portland Chapter who

meet at 7:30 p.m. every second Tuesday in the N.E.C.A. Building in Portland.

Incidentally, a lot of CSI Chapter Newsletter Editors can't help but wonder how Predicator Editor J. Min Luey turns out 10 pages of Newsletter each and every month with minimal "plagiarism" from other CSI Newsletters. How about that, Editor Luey?

Portland Chapter/Design Awards



Bill Muchow, FAIA (above), Denver with Howard Backen, San Francisco and Lee Kelly, Oregon City form the 1971 Portland Awards Jury.

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McCOLLUM-LAW CORPORATION 3850 E. 48th AVE., DENVER, COLO. 80216 • 355-2341 In addition to an exceptionally busy schedule, the Portland/AIA Chapter has set the schedule for their 1971 Design Awards Program. Submittals are due at the Chapter office by May 14, and from May 21 through June 13 they will be on display at the Portland Art Museum in conjunction with the Museum's School Exhibit. Awards will be presented at the usual gala banquet on May 18.

The March Chapter Meeting at the AIA Office featured an informal look at "The State of Our Schools" presented by Dr. Robert W. Blanchard, Superintendent of Portland Schools and by Edward Wundram, AIA, who is Director of the Systems Building Program for the Portland Public Schools. The Educational Facilities Workshop, of course, was held on March 30 in Tacoma.

utah

It's New!

You can almost bet on it-if it's new! if it is innovative! Utah has had something to do with it. For instance, the Women's Auxiliary/Consulting Engineers Council turned up with a "Communications Development Conference" . . . that's a party! It was held at the La Morena Cafe, Guadalupe Center, and everybody communicated beautifully . . . during the Attitude Adjustment Period, over delicious Mexican Food and on the dance floor. Although the musical group will never give Herb Alpert much to worry about, everyone was in complete agreement . . . it was a fine Conference! Well attended, too!

Here's another, for instance:

Students from the Department of Architecture at the University of Utah

sponsored the "Environmental Bandwagon" - free guided tours of Salt Lake County on a double-decker London bus. Buses left hourly from 1:00-4:00 p.m. on Friday, March 12, and from 10:00 a.m.-4:00 p.m. on Saturday and included a "look-see" at some of the county's most interesting environmental accidents. The tour was free and sponsored by the Department of Architecture and students in the Man-Environment seminar taught by Professor Stanley Hallet, who personally narrated the many areas of significance not typically included on other tours.

Pretty sharp . . . those folks over in Utah!

Commissions/Committees-1971

The Utah Chapter/AIA has made some important appointments to the Commission-Committee structure for the year 1971. They are Jim Christopher to Coordinator of the Commission on the Professional Society; William W. Louie will be the Coordinator for the Commission on Education and Research; Joe Ashworth will head the Commission on Professional Practice; David Hayes is the Coordinator for the Commission on Architectural Design and Boyd Blackner will coordinate the activities of the Commission on Public Affairs. Listed as Chairmen of the various Committees serving under the Commissioners are: Von White, Membership; Jim Christopher, By-Laws

and Nominating; Dean Gustavson, FAIA, Fellows; Burtch Beal, Education; William Nelson, Internship; A. Dean Jensen, Technicians Training; Elden Talbot, Continuing Education and Research; Governmental Regulations Committee, Albert Christensen; William Monroe, Building Regulations; Fred Montmorency, Office Procedures; George Daniels, Esthetics and Environmental Design; Glen Lloyd, Awards; Lee Knell, Historic Buildings; Don Panushka, Urban Design. Bruce Jensen chairs the Public Relations Committee, and David Hayes is the Representative to ASSIST, the Utah Chapter's Committee on Social Responsibility. In the Building Industry Coordination Committee, Boyd Blackner is the liaison man with AGC, CEC, CSE and AID; William Louie, PC; Arthur Olsen is the PC Tech Representative and Executive Secretary Ann Marie Boyden, ASLA and WAL. It is quite obvious that everybody is involved in the team effort in Utah!



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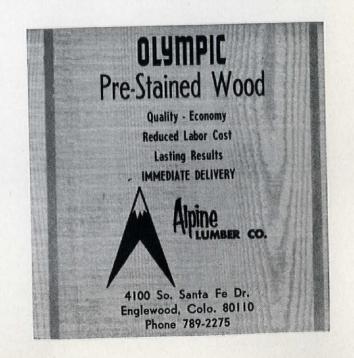
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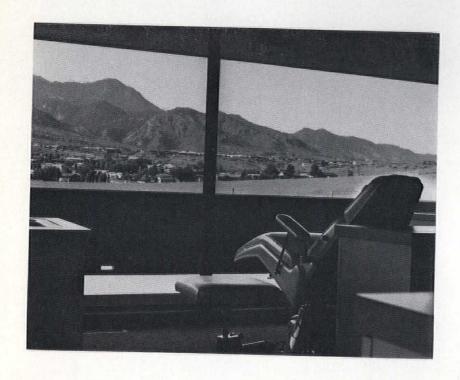
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symposia/a design feature

Practically Painless



We are all too familiar with those famous words just before somebody hands you the headache remedy. There's . . .

"Mary Jane has to have her teeth straightened!"

"Sorry, sir, that one's got to come out!"

These little conversational gems like—"Mother is coming to live with us"—are in the same category. Who needs 'em!

But people keep right on saying them—so the architectural firm of Collins and Roberts in Colorado Springs has actually done something about it. They have designed a Dental Clinic which is not only functional, but very handsome. They have further added a panoramic view of the magnificent Rockies which should help considerably to ameliorate one's apprehension when the gentleman in the white coat says . . . "Open a little wider, please." We are, of course, most appreciative to the Collins and Roberts firm for the "facts" and for their excellent graphics.

The building is zoned into three suites. An orthodontist in the upper level, and a pedodontist and oral surgeon in the lower level. Entry into each suite is simple and direct. As a large majority of the patients are children, we have attempted to minimize the fear of the operatory by exposing a magnificent panorama of the mountains through solar bronze glass. The operatory now becomes an open, exciting, and pleasant space. Exterior walls are splayed to enforce the panorama in the upper level operatory. Large overhangs on the east and west

are provided to compete with sun and wind. The west overhang also creates a playdeck for children.

The reception areas are located to provide visual control of each suite without the traditional medicinal impact. Glass doors and hallways with door height partitions reinforce the cpen feeling, and further direct the patients to the preparatory areas adjacent to the operatories. Bright colors are introduced throughout the building.

The steel framed building has interior partitions of metal studs with ½"





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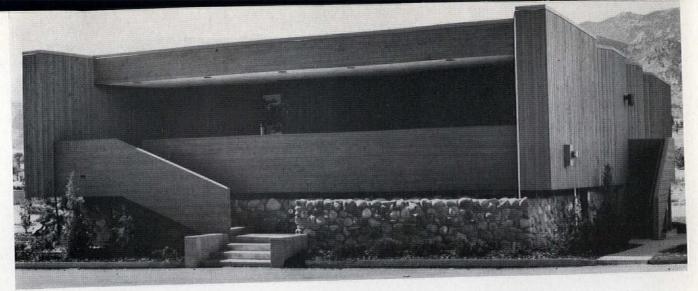
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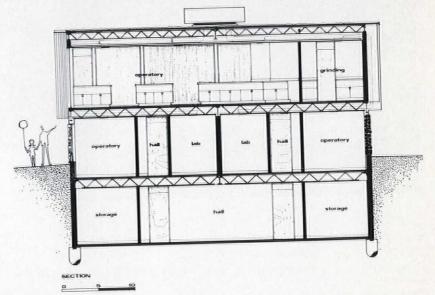
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sound board and %" gypboard each face. Rough sawn stained spruce is used in the lower level foyer reception rooms matching the exterior siding. Ceilings are acoustical tile on gypboard, lower level, and sprayed on acoustical plaster, upper level. Metal pan ceilings are used in the grinding rooms and labs. All cabinet work is custom to owner's specifications in lieu of the standard dental equipment cabinets normally used. The building exterior is glacier stone at grade with vertical spruce boards stained to create a residential feeling compatible to the surrounding area. Slits of solar bronze glass in the work areas are introduced to break the monotony of the cabinet work and the exterior planes of spruce. The



mechanical system is forced air with three furnaces. Overhangs on the north and south exterior walls are used to transport ducts between the upper and lower levels. The entire building is cooled.



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Bob Vansant of Black and Veatch, Kansas City, will star in this year's Educational Seminar to be presented May 12 by the Denver Chapter/CSI. More on this to come!

A Western Region workshop on the planning of educational facilities will be held April 6th in the new Memorial Union Building on the campus of Arizona State University in Tempe.

On March 9th, Denver's Producers' Council (The Silver Bowl Chapter) hosted Home Builders in the Cathedral Room at the Albany. Carl Edwards was in charge.

Coats Training Center Expands!
1,800 additional square feet of space is being added to the Alva J. Coats Training Center in Albuquerque,
New Mexico. Work on the addition will be done by apprentices on the building which honors Mr. Coats, former Executive Director of the New Mexico Building Branch, AGC.

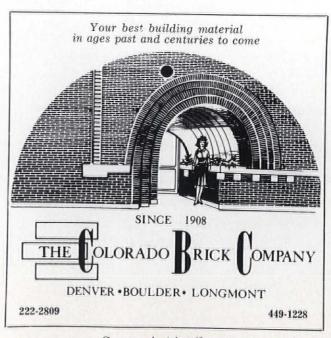
Theme of this year's national AIA Convention is "The Hard Choices." One of the principal speakers will be John W. Gardner, chairman of Common Cause.

"The Hospital Accident Problem" was the topic treated at the March meeting of the Arizona Society for Hospital Engineers. The speaker was Louis H. Huyghe who is President-Elect of this fine organization.

Harold Boone, AIA, was crowned "King of Construction" by the Portland Chapter of Women in Construction at their 10th Annual Bosses Night.

When CSI members don their Mickey
Mouse hats and meet on June 7-9 at
Anaheim, California—they will
discuss "Contruction Industry
Communications:—and as Lonesome
George says, "We need them!"





The Consulting Engineers Council/Utah has set April 30th as their Annual Meeting date. The place-Willow Creek Country Club.

Thomas Wittenwyler, a former associate in the Denver firm of Crowther, Kruse, McWilliams, has opened an office at 1800 Jackson in Golden for the practice of Architecture. Mr. W. is a gradute of Colorado University and a corporate member of the Colorado Society/AIA. Bon Voyage, Mr. Wittenwyler!

1971 President of the Arizona Building Chapter of the Associated General Contractors is Edward J. Dunnigan, Jr. of Yuma, Arizona.

The Denver Chapter of the Construction Specifications Institute welcomed eleven new members in the March issue of "Scope." This is a great record!

The Education Facilities Workshop up in the Northwest Country was held March 30th at Pacific Lutheran University in Tacoma.

Lamar Kelsey and Associates of Colorado Springs made the "big-time" in February when their Evergreen Junior High School project was featured in Progressive Architecture. This handsome Jefferson R-1 facility was awarded a citation for excellence of design by the AASA in 1968.

The Apartment Builder/Developer Conference and Exposition—third time around—is scheduled for April 26-28 in New Orleans.

Denver Home Builders and their ladies are pointing with pardonable pride, these days, to gracious Marie Marrone who has been elected 1971 National President of the NAHB Ladies Auxiliary. Congratulations, Mrs. Marrone.

Index to Advertising

| CSI Specifications Division Page | |
|---|----|
| 6 Alpine Lumber Company | |
| Brunson Instrument Company | |
| 8 Ray Carson Company | |
| Colorado Apartment House Association | |
| 4 Colorado Brick Company | |
| 8 Colorado Metal Products Company 5 | |
| 9 Colorado Paint CompanyII | |
| 15 Colorado Pipe Trade Industry Program Inside Back Cover | |
| 3 Colorado Ready Mixed Concrete Assn | |
| 8 W. Ray Crabb, Inc | |
| 14 Dover Elevator Company | |
| 9 Francis J. Fisher, Inc | |
| 8 Formica Corporation 7 | |
| 10 Johnson Hardware, Inc | |
| 10 McCollum-Law Corportion | |
| 9 Monarch Tile Company21 | |
| 5 Navajo Industries, Inc | |
| 8 Pella Products of Colorado, Inc | , |
| 3 Protex Industries, IncInside Front Cove | _ |
| Public Service Company of Colorado | 1 |
| 2 Richlawn Turf Farms | 7 |
| 4 Robinson Brick & Tile Company | 2 |
| 12 Seal Office Furniture | 3 |
| G. A. Talbert, Inc | 1 |
| 5 Trus-Joist Corporation 4 | I |
| II Unistrut Western, Inc | 0 |
| 4 Versa Tech Industries, Inc. | 6 |
| 15 Warner Company | 6 |
| 6 Woodside Lumber Company 3 | 5 |
| 5 William G. Zimmerman Architectural Metals, Inc. | |
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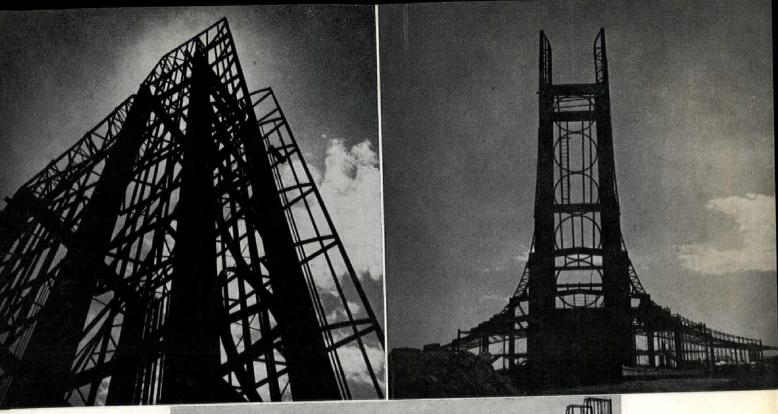
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| GRAND JUNCTIONKEXO1230 kc | 8:25 AM |
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